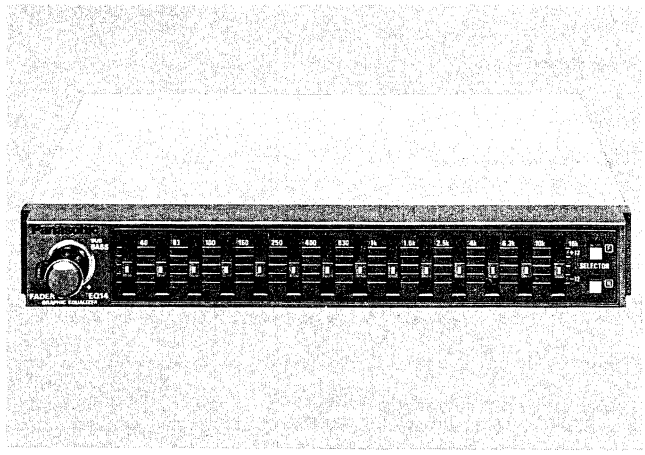
ORDER NO. APD8803874

Service Manual

AUTO PRODUCTS

CY-EQ14EN

GRAPHIC EQUALIZER



SPECIFICATIONS*

Power Supply:	DC 12V (11~16V), Test Voltage 14.4V, Negative Ground	
Current Consumption:	0.2 A	
Input Sensitivity:	600 mV	
Output Voltage:	600 mV	
Total Harmonic Distortion:	0.005% (1 kHz)	
Signal to Noise Ratio:	100 dB (IHF-A)	
Frequency Response:	10 Hz~60 kHz ± 3dB	
Stereo Separation:	80 dB (1 kHz)	
Equalizer Tone Controls:	40 Hz ± 12 dB	1kHz ± 12 dB
	63 Hz ± 12 dB	1.6kHz ± 12 dB
	100 Hz ± 12 dB	2.5kHz ± 12 dB
	160 Hz ± 12 dB	4 kHz ± 12 dB
	250 Hz ± 12 dB	6.3 kHz ± 12 dB
	400 Hz ± 12 dB	10 kHz ± 12 dB
	630 Hz ± 12 dB	16 kHz ± 12 dB
Sub Bass Output Cut-Off Frequency:	45, 80 Hz	
Input Impeadance:	47 kΩ	
Output Impeadance:	600Ω	
Dimensions**:	178mm x 130mm x 25mm	
Weight**:	0.7 kg	

* Above specifications comply with EIA interim standard.
** Specifications subject to change without notice.
** Dimensions and Weight shown are approximate.

FEATURES

- Stereo graphic equalizer with 14-position controls.
- Three amplifiers connectable with fader control.
- Sub Bass Output.
- Built-in equalizer operating indicator.
- Self-illuminated equalizer switch.
- DIN cord connector.

Panasonic

Matsushita Electric Trading Co., Ltd.
P. O. Box 288, Central Osaka, Japan

CY-EQ14EN

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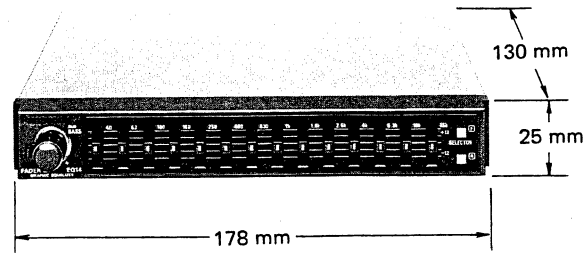
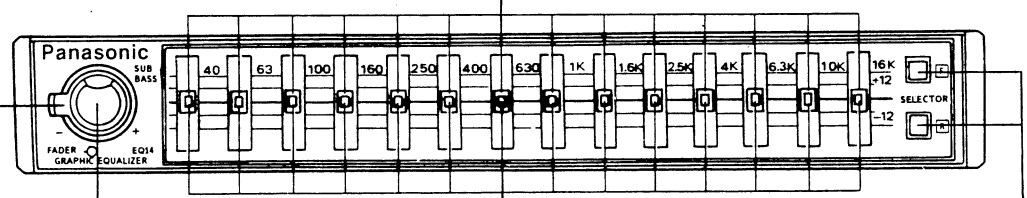
DIMENSIONS



FRONT PANEL CONTROLS AND THEIR FUNCTIONS

Fader Control (FADER)
Adjust this control for best sound balance between the front and rear speakers (4-speaker system). Turn the control clockwise from the center position to increase sounds from the front speakers, and turn counterclockwise to increase sounds from the rear speakers.
NOTE: If only one amplifier (2-speaker system) is connected with this unit, the fader control must be turned counterclockwise towards the "rear" position. The "front" side position will not work.

Graphic Equalization Tone Controls
The fourteen-band frequency characteristics are individually adjusted with these controls to the desired graphic equalization tone responses.
- The signal level is 0dB (flat response) at the center position of the control knob. It is increased by 12dB at the uppermost position and is decreased by 12dB at the lowermost position.



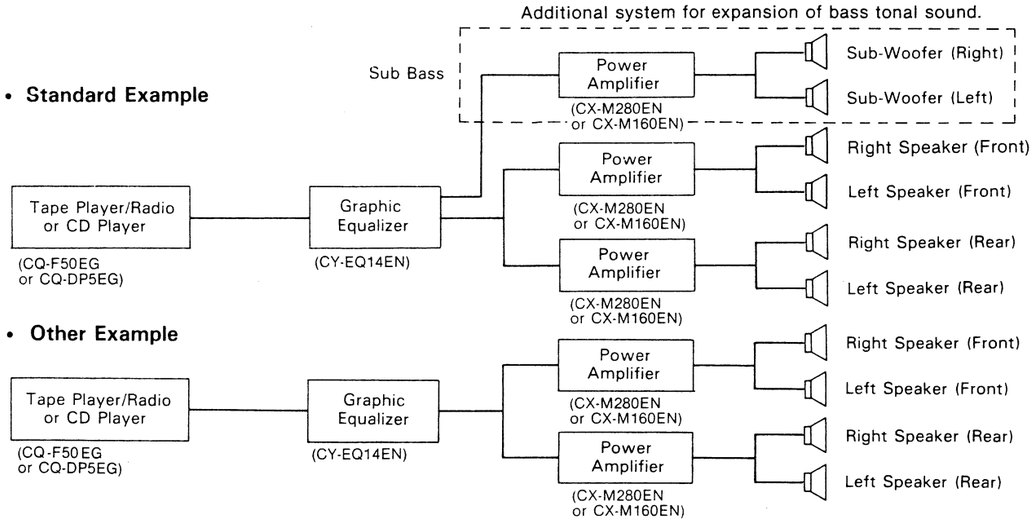
Sub Bass
Adjust the Sub Bass control to the desired Sub Bass (Sub-Woofer) sound level.
Turning the knob towards "+" position increases Sub Bass (Sub-Woofer) level; and turning towards "–" position decreases Sub Bass (Sub-Woofer) level.
Note:
Before installing make sure to set the Sub Bass Frequency Selector to your desired frequency range, either "45Hz" or "80Hz".

Equalizer Indicator
Lights up when the selector switch is on (depressed in).

Selector Switch (SELECTOR)
[F] : Switch on (depressed in) to activate the equalizer on the front speakers.
[R] : Switch on (depressed in) to activate the equalizer on the rear speakers.
NOTE: Press both [F] and [R] to activate the equalizer on the front and rear speakers.

SYSTEM DIAGRAM

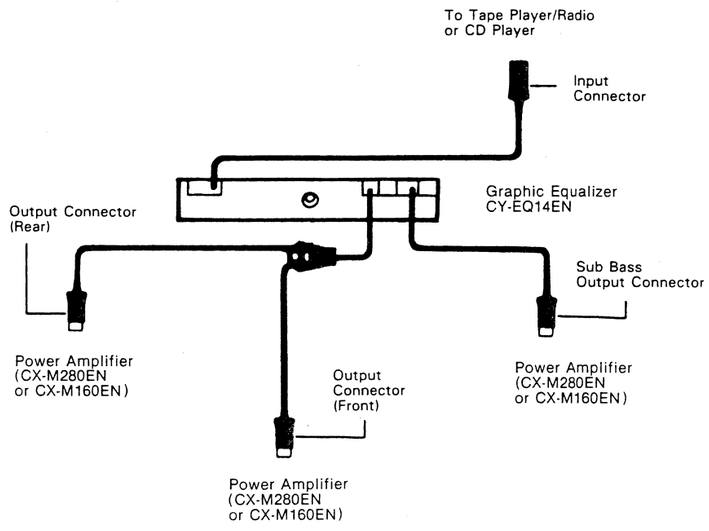
Various types of speakers are available from your dealer. Select the speakers that suit your preference.



CAUTION:
If one amplifier, 2-speaker system is connected with the stereo unit, only the rear speakers will operate and the front speakers will not.

NOTE: In addition to the above system diagrams, please consult your dealer.

WIRING DESCRIPTION

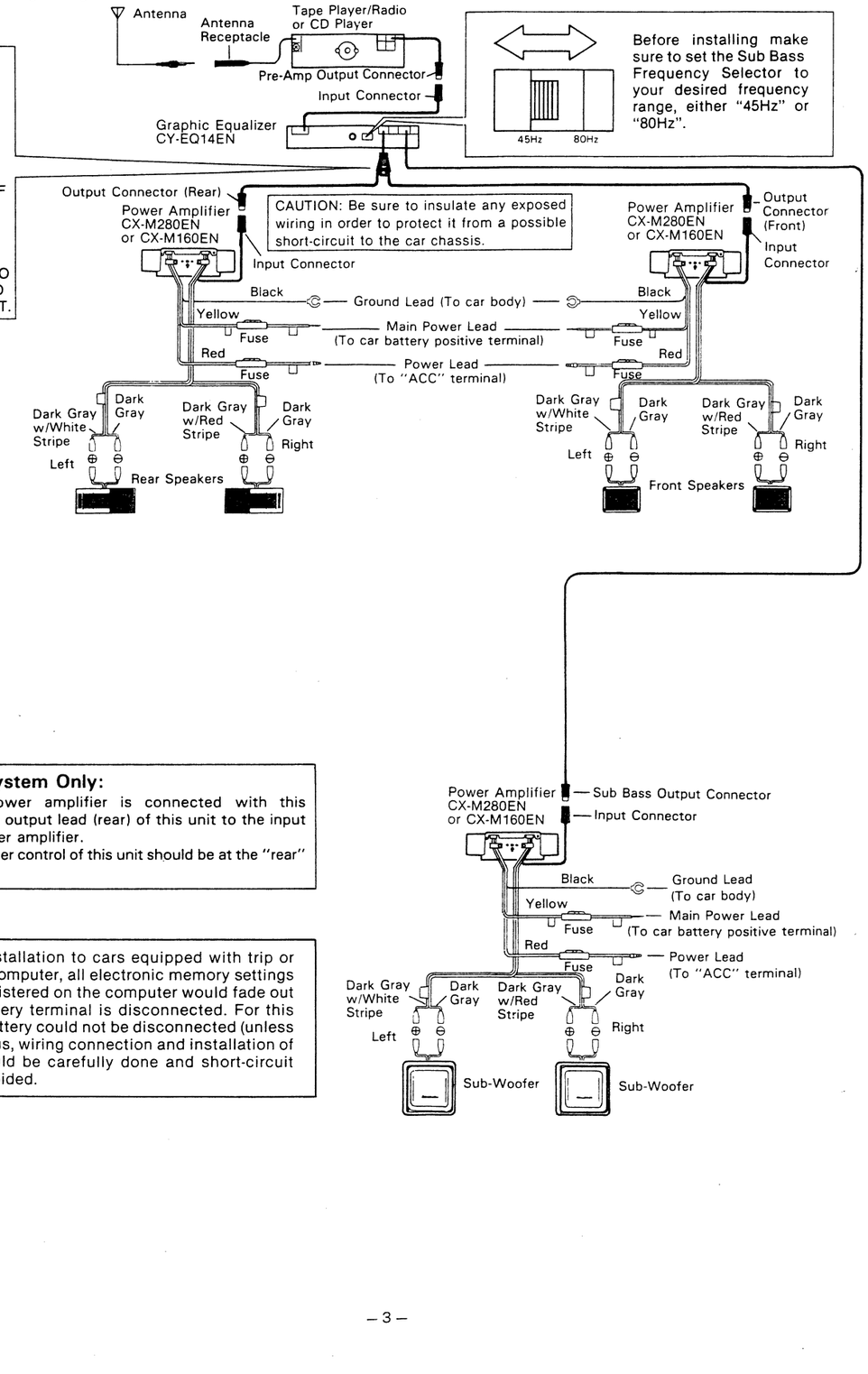

To Tape Player/Radio or CD Player
Input Connector
Graphic Equalizer CY-EQ14EN
Output Connector (Rear)
Sub Bass Output Connector
Power Amplifier (CX-M280EN or CX-M160EN)
Output Connector (Front)
Power Amplifier (CX-M280EN or CX-M160EN)
Power Amplifier (CX-M280EN or CX-M160EN)

COMPOSITION AND WIRING CONNECTION

Before Connecting:

- Disconnect the negative side of the battery to prevent short-circuit during wiring.
- If in doubt, consult your nearest dealer.

CAUTION:
BE SURE TO CONNECT THE OUTPUT CONNECTOR (REAR) OF THIS UNIT TO THE INPUT CONNECTOR OF THE POWER AMPLIFIER, IF ONLY ONE POWER AMPLIFIER IS TO BE CONNECTED WITH THIS UNIT.

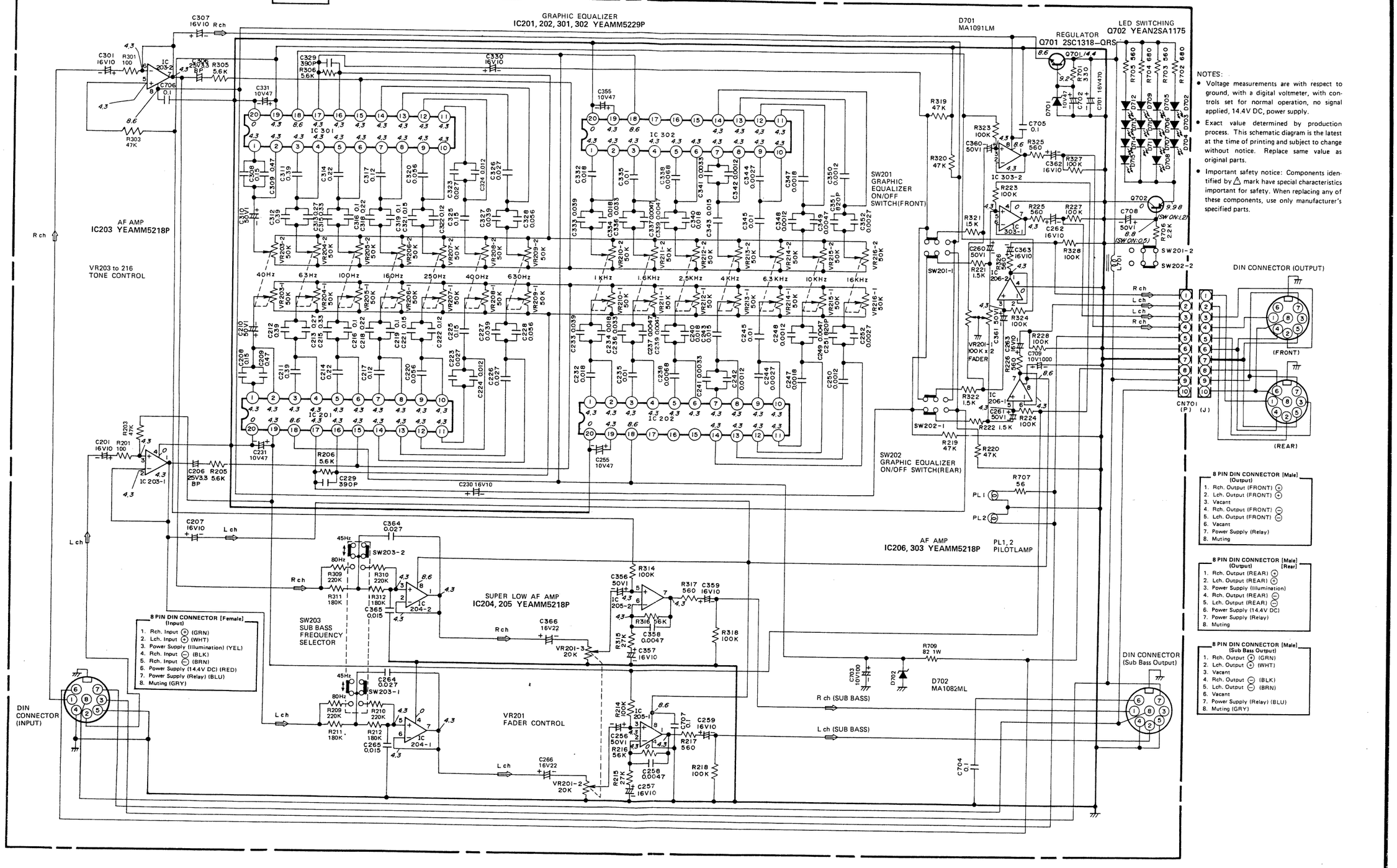


2-Speaker System Only:
If only one power amplifier is connected with this unit, connect the output lead (rear) of this unit to the input lead of the power amplifier.
However, the fader control of this unit should be at the "rear" position.

NOTE: For installation to cars equipped with trip or navigational computer, all electronic memory settings previously registered on the computer would fade out when the battery terminal is disconnected. For this type of car, battery could not be disconnected (unless necessary) thus, wiring connection and installation of this unit should be carefully done and short-circuit should be avoided.

SCHEMATIC DIAGRAM MODEL CY-EQ14EN

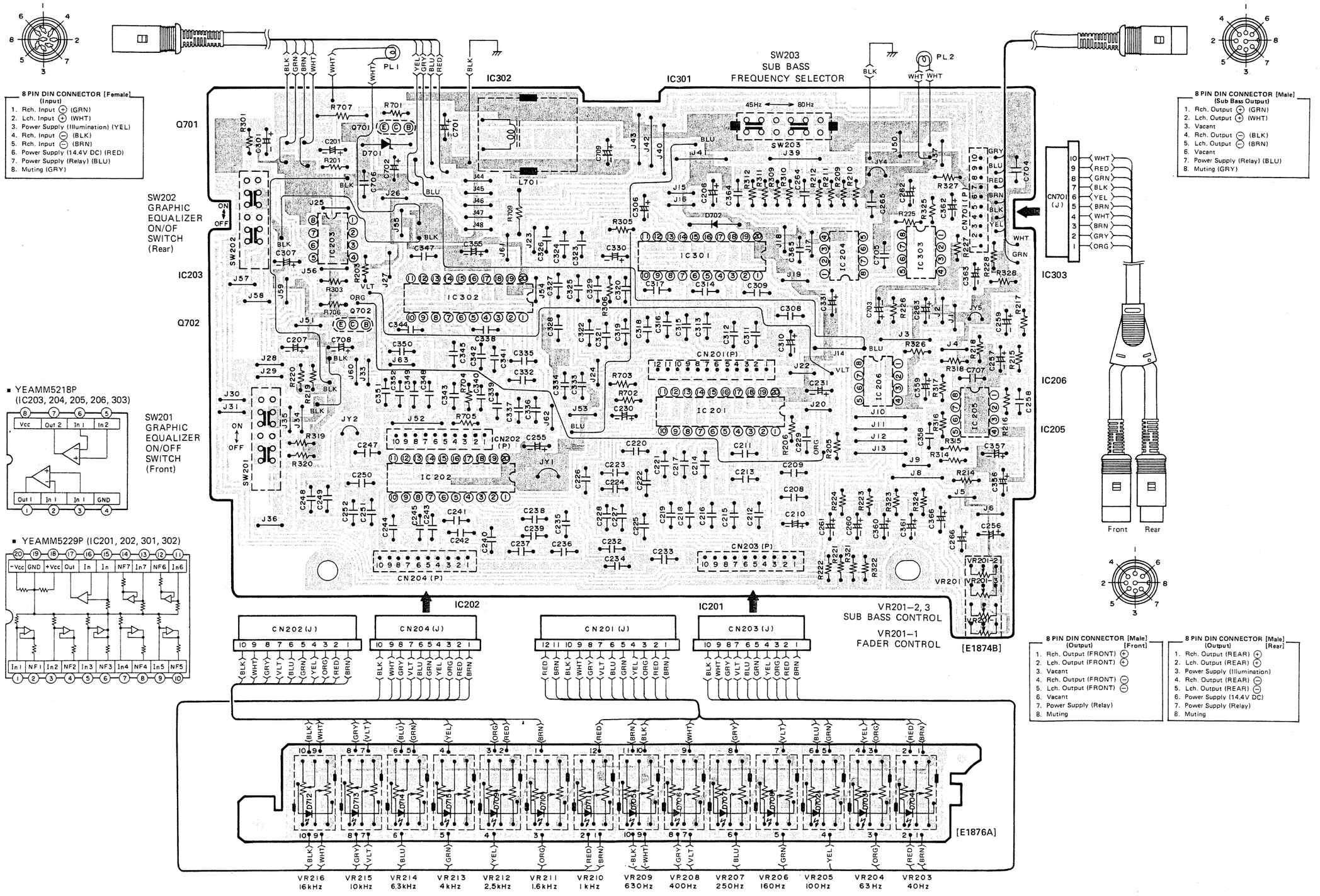
E-1874B



NOTES:

- Voltage measurements are with respect to ground, with a digital voltmeter, with controls set for normal operation, no signal applied, 14.4V DC, power supply.
- Exact value determined by production process. This schematic diagram is the latest at the time of printing and subject to change without notice. Replace same value as original parts.
- Important safety notice: Components identified by △ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

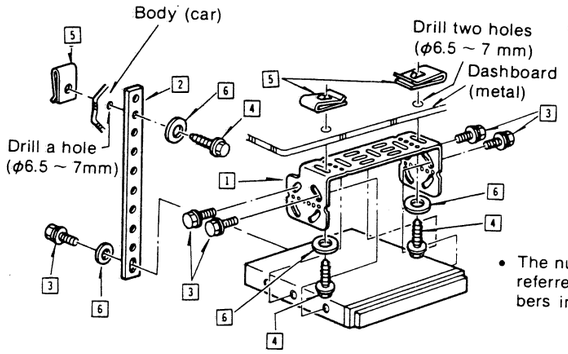
WIRING DIAGRAM MODEL CY-EQ14EN



GRAPHIC EQUALIZER

INSTALLATION INSTRUCTIONS

- The unit operates on DC 12V battery (negative ground).
- The unit should be installed by your dealer.
- **Installation (Suspension System):**
  1. Drill two holes (φ6.5 ~ 7mm) for the mounting bracket [1] in the dashboard (metal) and one hole (φ6.5 ~ 7mm) for the rear support strap [2] in the body (car).
  2. Secure the rear support strap [2] to the body.
  3. Secure the mounting bracket [1] to the dashboard.
  4. Fix the unit to the mounting bracket [1].
  5. Fix the unit to the rear support strap [2]. (Use the large special plain washer.)



Installation Accessories

The unit is supplied with the following accessories.

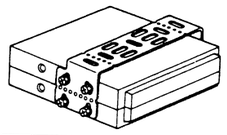
No.	Item	Q'ty
[1]	Mounting Bracket	1
[2]	Rear Support Strap	1
[3]	Hex. Bolt (M5 x 10 mm)	5
[4]	Sheet Metal Screw (M5 x 25 mm)	3
[5]	Lock Nut (M5)	3
[6]	Special Plain Washer (M5)	4

- **Additional Fitting Kit (option)**

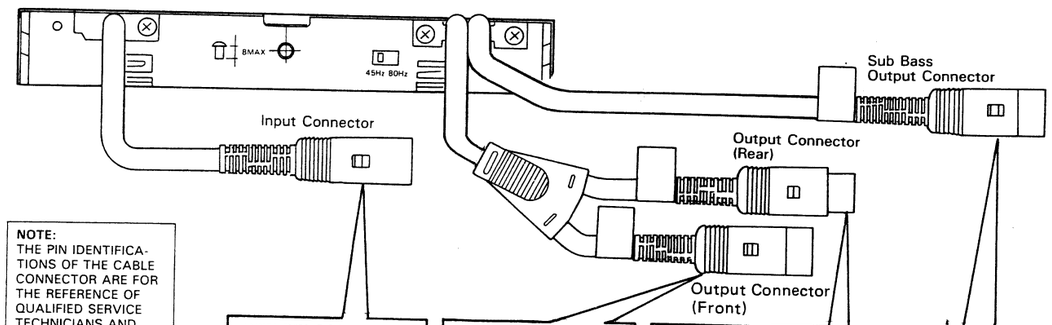
  The unit can be installed into the dashboard or console box by using an appropriate fitting kit (option) depending upon the type of your car. Ask your dealer for further information.

- The numbers [1] to [6] are referred to the parts numbers in the accessory list.

This unit can be mounted together (using the mounting bracket [1]) with any auxiliary car audio component having a height of about 25 mm.



DESCRIPTIONS OF DIN CONNECTORS



NOTE:
THE PIN IDENTIFICATIONS OF THE CABLE CONNECTOR ARE FOR THE REFERENCE OF QUALIFIED SERVICE TECHNICIANS AND PROFESSIONAL INSTALLERS. IN ORDER TO AVOID INVALIDATING WARRANTY COVERAGE, PLEASE **DO NOT** CUT THE CABLE CONNECTOR IN ATTEMPTING TO CONNECT WITH OTHER SYSTEMS. IF OTHER SYSTEMS ARE TO BE CONNECTED TO THE TECHNICS CAR AUDIO SYSTEM, PLEASE CONSULT WITH TECHNICS DEALER OR PROFESSIONAL INSTALLER FOR INSTRUCTIONS AND CABLE ADAPTOR.

8PIN DIN CONNECTOR [Female]

INPUT

1. Rch. Input ⊕
2. Lch. Input ⊕
3. Power Supply (Illumination)
4. Rch. Input ⊖
5. Lch. Input ⊖
6. Power Supply (14.4V DC)
7. Power Supply (Relay)
8. Muting

8PIN DIN CONNECTOR [Male]

OUTPUT (FRONT)

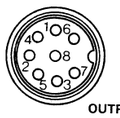
1. Rch. Output (FRONT) ⊕
2. Lch. Output (FRONT) ⊕
3. Vacant
4. Rch. Output (FRONT) ⊖
5. Lch. Output (FRONT) ⊖
6. Vacant
7. Power Supply (Relay)
8. Muting

8PIN DIN CONNECTOR [Male]

OUTPUT (REAR)

1. Rch. Output (REAR) ⊕
2. Lch. Output (REAR) ⊕
3. Power Supply (Illumination)
4. Rch. Output (REAR) ⊖
5. Lch. Output (REAR) ⊖
6. Power Supply (14.4V DC)
7. Power Supply (Relay)
8. Muting

8PIN DIN CONNECTOR [Male]



OUTPUT

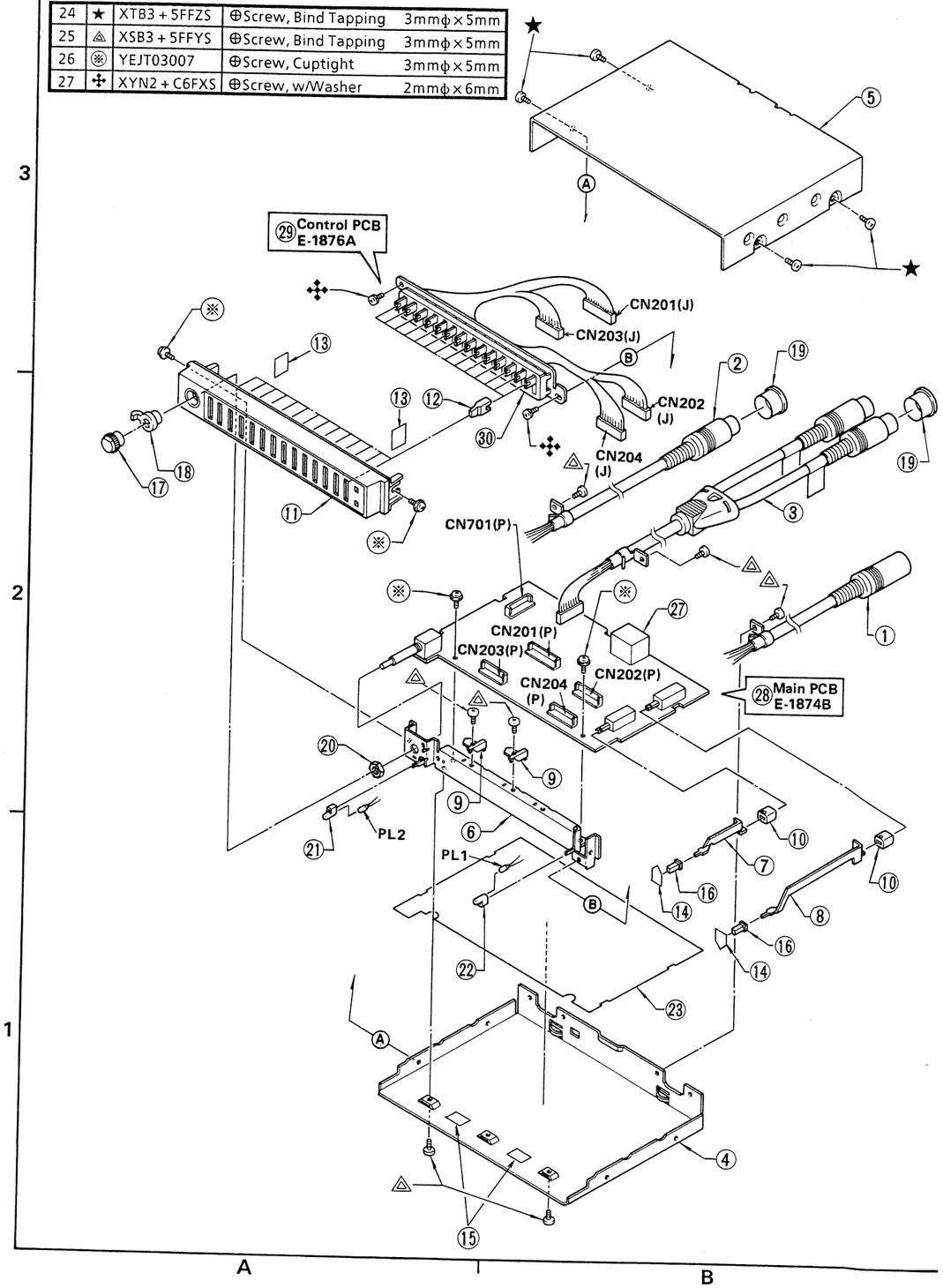
1. Rch. Output ⊕
2. Lch. Output ⊕
3. Vacant
4. Rch. Output ⊖
5. Lch. Output ⊖
6. Vacant
7. Power Supply (Relay)
8. Muting

EXPLODED VIEW

■ Number in ○ are indicated REF. No. in the REPLACEMENT PARTS LIST.

■ The symbols next to the screws indicate as follows.

24	★	XTB3 + 5FFZS	⊕Screw, Bind Tapping	3mmφ×5mm
25	△	XSB3 + 5FFYS	⊕Screw, Bind Tapping	3mmφ×5mm
26	※	YEJT03007	⊕Screw, Cuptight	3mmφ×5mm
27	✣	XYN2 + C6FXS	⊕Screw, w/Washer	2mmφ×6mm



Replacement Parts List
Model NO. CY-EQ14EN

NOTES :
1. Be sure to make your orders of replacement parts according to this list.
2. Important safety notice : Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. Next to the Ref. No. in the parts list is a location key, to show the general location of the parts shown in the exploded drawing, as in a road map.
4. Printed circuit board assembly with mark (NLA) is no longer available after production discontinuation of the complete set.

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
			MISCELLANEOUS		
PL1, 2 (2-B)(1-B)	YEAL31515WL		Pilot Lamp	2	
CN201(P) (2-B)	EMCS1250Z		12P Plug	1	
CN201(J) (3-B)	EMCZ1212D01		12P Jack	1	
CN202(P) (2-B)	EMCS1050Z		10P Plug	1	
CN202(J) (2-B)	EMCZ1012D02		10P Jack	1	
CN203(P) (2-B)	EMCS1050Z		10P Plug	1	
CN203(J) (3-B)	EMCZ1012D02		10P Jack	1	
CN204(P) (2-B)	EMCS1050Z		10P Plug	1	
CN204(J) (2-B)	EMCZ1012D02		10P Jack	1	
CN701 (2-B)	EMCS1050Z		10P Plug	1	
1 (2-B)	YEAE01585		Connector	1	
2 (3-B)	YEAE01587		Connector	1	
3 (2-B)	YEAE01744		DIN Cord	1	
4 (1-B)	YEFA01923A		Chassies	1	
5 (2-B)	YEFA03799		Upper Cover	1	
6 (1-A)	YEFA07156		Front Plate	1	
7 (1-B)	YEFX046870		Lever (A)	1	
8 (1-B)	YEFX046871		Lever (B)	1	
9 (2-A)(2-B)	YEFX0212043		Mounting Bracket	2	
10 (1-B)	YEFX009109		Joint	2	
11 (2-A)	YEFC022821		Escutcheon Ass'y	1	
12 (2-A)	YEFE03050		Knob, Tone	14	
13(2-A)(3-A)	YEFV02617		Shade	2	
14 (1-B)	YEFS01576A		Pad	2	
15(1-A)(1-B)	YEFS01581		Pad	2	
16 (1-B)	YEFE131206		Button, Selector	2	
17 (1-B)	YEFE07347		Knob, Sub base	1	
18 (1-B)	YEFE08276		Knob, Fader	1	
19(2-B)(3-B)	YEFR04185		DIN Cap	2	
20 (2-B)	YEJN01076		Nut	1	
21 (1-A)	YEFR04274		Illumination Cap	1	
22 (1-A)	YEFK04341		Pilot Lamp Holder	1	
23 (1-B)	YEFV01918		Insulator	1	
24 ★	XTB3 + 5FFZS		⊕Screw, Bind Tapping 3mmϕ×5mm	4	
25 ⚠	XTB3 + 5FFYS		⊕Screw, Bind Tapping 3mmϕ×5mm	7	
26 ※	YEJT03007		⊕Screw, Cuptight 3mmϕ×5mm	4	
27 ✣	XYN2 + C6FXS		⊕Screw, w/Washer 2mmϕ×6mm	2	
28 (2-B)	YEPOPT1874A0		PCB w/Component	1	NLA
29 (3-A)	YEPOPT1876A0		PCB w/Component	1	NLA
30 (2-A)	YEFX0212065		Mounting Bracket	1	
			INSTALLATION PARTS		
1	YEFG02315B		Mounting Bracket	1	
2	YEFG04010A		Rear Support Strap	1	
3	YEJV12071		Hex. Bolt (M5 x 10mm)	5	
4	YEJV12066		Sheet Metal Screw (No.10 x 1")	3	
5	YEJN99024		Lock Nut (No.10)	3	
6	YEJW02019FX		Special Plain Washer (No.10)	4	
			PRINTING		
	YEFM281417		Instruction Book	1	
	YEAM281432		Instruction Book	1	

MODEL CY-EQ14EN

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
ICs & TRANSISTORS					
IC201, 202	YEAMM5229P		Graphic Equalizer	2	
IC203	YEAMM5218P		AF Amp	1	
IC204, 205	YEAMM5218P		Super Low AF Amp	2	
IC206	YEAMM5218P		AF Amp	1	
IC301, 302	YEAMM5229P		Graphic Equalizer	2	
IC303	YEAMM5218P		AF Amp	1	
Q701	2SC1318QRS		Regulator	1	
Q702	YEAN2SA1175		LED Switching	1	
DIODES					
D701	MA1091LM		Zener Diode (9.1V)	1	
D702	MA1082LM		Zener Diode (8.2V)	1	
CAPACITORS					
C201	ECEA1CU100		10 MFD 16WV Electrolytic	1	
C206	ECEA1ESN3R3		3.3 MFD 25WV Electrolytic	1	
C207	ECEA1CU100		10 MFD 16WV Electrolytic	1	
C208	ECQV1H154JZ		0.15 MFD 50WV Polyester	1	
C209	ECQV1H474JZ		0.47 MFD 50WV Polyester	1	
C210	ECEA1HU010		1 MFD 50WV Electrolytic	1	
C211, 212	ECQV1H394JZ		0.39 MFD 50WV Polyester	2	
C213	ECQV1H274JZ		0.27 MFD 50WV Polyester	1	
C214	ECQV1H224JZ		0.22 MFD 50WV Polyester	1	
C215	ECQV1H334JZ		0.33 MFD 50WV Polyester	1	
C216	ECQV1H104JZ		0.1 MFD 50WV Polyester	1	
C217	ECQV1H124JZ		0.12 MFD 50WV Polyester	1	
C218	ECQV1H224JZ		0.22 MFD 50WV Polyester	1	
C219	ECQV1H104JZ		0.1 MFD 50WV Polyester	1	
C220	ECQV1H563JZ		0.056 MFD 50WV Polyester	1	

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
C221	ECQV1H154JZ		0.15 MFD 50WV Polyester	1	
C222	ECQV1H124JZ		0.12 MFD 50WV Polyester	1	
C223	ECQV1H273JZ		0.027 MFD 50WV Polyester	1	
C224	ECQB1H123JZ		0.012 MFD 50WV Polyester	1	
C225	ECQB1H154JZ		0.15 MFD 50WV Polyester	1	
C226	ECQV1H273JZ		0.027 MFD 50WV Polyester	1	
C227	ECQV1H393JZ		0.039 MFD 50WV Polyester	1	
C228	ECQV1H563JZ		0.056 MFD 50WV Polyester	1	
C229	YECCD1H391KM		390 PF 50WV Ceramic	1	
C230	ECEA1CU100		10 MFD 16WV Electrolytic	1	
C231	ECEA1AU470		47 MFD 10WV Electrolytic	1	
C232	ECQB1H183JZ		0.018 MFD 50WV Polyester	1	
C233	ECQV1H393JZ		0.039 MFD 50WV Polyester	1	
C234	ECQB1H183JZ		0.018 MFD 50WV Polyester	1	
C235	ECQB1H103JZ		0.01 MFD 50WV Polyester	1	
C236	ECQV1H333JZ		0.033 MFD 50WV Polyester	1	
C237	ECQB1H472JZ		0.0047 MFD 50WV Polyester	1	
C238	ECQB1H682JZ		0.0068 MFD 50WV Polyester	1	
C239	ECQB1H472JZ		0.0047 MFD 50WV Polyester	1	
C240	ECQB1H183JZ		0.018 MFD 50WV Polyester	1	
C241	ECQB1H332JZ		0.0033 MFD 50WV Polyester	1	
C242	ECQB1H122JZ		0.0012 MFD 50WV Polyester	1	
C243	ECQB1H153JZ		0.015 MFD 50WV Polyester	1	
C244	ECQB1H272JZ		0.0027 MFD 50WV Polyester	1	
C245	ECQB1H103JZ		0.01 MFD 50WV Polyester	1	
C247	ECQB1H182JZ		0.0018 MFD 50WV Polyester	1	
C248	ECQB1H122JZ		0.0012 MFD 50WV Polyester	1	
C249	ECQB1H472JZ		0.0047 MFD 50WV Polyester	1	
C250	ECQB1H122JZ		0.0012 MFD 50WV Polyester	1	
C251	YECQZ1H821KV		820PF 50WV Polyester	1	
C252	ECQB1H272JZ		0.0027 MFD 50WV Polyester	1	
C255	ECEA1AU470		47 MFD 10WV Electrolytic	1	
C256	ECEA1HU010		1 MFD 50WV Electrolytic	1	
C257	ECEA1CU100		10 MFD 16WV Electrolytic	1	

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
C258	ECQB1H472JZ		0.0047 MFD 50WV Polyester	1	
C259	ECEA1CU100		10 MFD 16WV Electrolytic	1	
C260, 261	ECEA1HU010		1 MFD 50WV Electrolytic	2	
C262, 263	ECEA1CU100		10 MFD 16WV Electrolytic	2	
C264	ECQV1H273JZ		0.027 MFD 50WV Electrolytic	1	
C265	ECQB1H153JZ		0.015 MFD 50WV Electrolytic	1	
C266	ECEA1CU220		22 MFD 16WV Electrolytic	1	
C301	ECEA1CU100		10 MFD 16WV Electrolytic	1	
C306	ECEA1ESN3R3		3.3 MFD 25WV Electrolytic	1	
C307	ECEA1CU100		10 MFD 16WV Electrolytic	1	
C308	ECQV1H154JZ		0.15 MFD 50WV Electrolytic	1	
C309	ECQV1H474JZ		0.47 MFD 50WV Electrolytic	1	
C310	ECEA1HU010		1 MFD 50WV Electrolytic	1	
C311, 312	ECQV1H394JZ		0.39 MFD 50WV Electrolytic	2	
C313	ECQV1H274JZ		0.27 MFD 50WV Electrolytic	1	
C314	ECQV1H224JZ		0.22 MFD 50WV Electrolytic	1	
C315	ECQV1H334JZ		0.33 MFD 50WV Electrolytic	1	
C316	ECQV1H104JZ		0.1 MFD 50WV Electrolytic	1	
C317	ECQV1H124JZ		0.12 MFD 50WV Electrolytic	1	
C318	ECQV1H224JZ		0.22 MFD 50WV Electrolytic	1	
C319	ECQV1H104JZ		0.1 MFD 50WV Electrolytic	1	
C320	ECQV1H563JZ		0.056 MFD 50WV Electrolytic	1	
C321	ECQV1H154JZ		0.15 MFD 50WV Electrolytic	1	
C322	ECQV1H124JZ		0.12 MFD 50WV Electrolytic	1	
C323	ECQV1H273JZ		0.027 MFD 50WV Electrolytic	1	
C324	ECQB1H123JZ		0.012 MFD 50WV Electrolytic	1	
C325	ECQV1H154JZ		0.15 MFD 50WV Electrolytic	1	
C326	ECQV1H273JZ		0.027 MFD 50WV Electrolytic	1	
C327	ECQV1H393JZ		0.039 MFD 50WV Electrolytic	1	
C328	ECQV1H563JZ		0.056 MFD 50WV Electrolytic	1	
C329	YECCD1H391KM		390 PF 50WV Ceramic	1	
C330	ECEA1CU100		10 MFD 16WV Electrolytic	1	
C331	ECEA1AU470		47 MFD 10WV Electrolytic	1	
C332	ECQB1H183JZ		0.018 MFD 50WV Polyester	1	
C333	ECQV1H393JZ		0.039 MFD 50WV Polyester	1	
C334	ECQB1H183JZ		0.018 MFD 50WV Polyester	1	
C335	ECQB1H103JZ		0.01 MFD 50WV Polyester	1	
C336	ECQV1H333JZ		0.033 MFD 50WV Polyester	1	
C337	ECQB1H472JZ		0.0047 MFD 50WV Polyester	1	
C338	ECQB1H682JZ		0.0068 MFD 50WV Polyester	1	
C339	ECQB1H472JZ		0.0047 MFD 50WV Polyester	1	
C340	ECQB1H183JZ		0.018 MFD 50WV Polyester	1	
C341	ECQB1H332JZ		0.0033 MFD 50WV Polyester	1	
C342	ECQB1H122 JZ		0.0012 MFD 50WV Polyester	1	
C343	ECQB1H153JZ		0.015 MFD 50WV Polyester	1	
C344	ECQB1H272JZ		0.0027 MFD 50WV Polyester	1	
C345	ECQB1H103JZ		0.01 MFD 50WV Polyester	1	
C347	ECQB1H182JZ		0.0018 MFD 50WV Polyester	1	
C348	ECQB1H122JZ		0.0012 MFD 50WV Polyester	1	
C349	ECQB1H472JZ		0.0047 MFD 50WV Polyester	1	
C350	ECQB1H122JZ		0.0012 MFD 50WV Polyester	1	
C351	YECQZ1H821KV		820 PF 50WV Polyester	1	
C352	ECQB1H272JZ		0.0027 MFD 50WV Polyester	1	
C355	ECEA1AU470		47 MFD 10WV Electrolytic	1	
C356	ECEA1HU010		1 MFD 50WV Electrolytic	1	
C357	ECEA1CU100		10 MFD 16WV Electrolytic	1	
C358	ECQB1H472JZ		0.0047 MFD 50WV Polyester	1	
C359	ECEA1CU100		10 MFD 16WV Electrolytic	1	
C360, 361	ECEA1HU010		1 MFD 50WV Electrolytic	2	
C362, 363	ECEA1CU100		10 MFD 16WV Electrolytic	2	
C364	ECQV1H273JZ		0.027 MFD 50WV Polyester	1	
C365	ECQB1H153JZ		0.015 MFD 50WV Polyester	1	
C366	ECEA1CU220		22 MFD 16WV Electrolytic	1	
C701	ECEA1CU471		470 MFD 16WV Electrolytic	1	
C702	ECEA1AU470		47 MFD 10WV Electrolytic	1	
C703	ECEA1AU101		100 MFD 10WV Electrolytic	1	
C704 to 707	ECQV1H104JZ		0.1 MFD 50WV Polyester	4	
C708	ECEA1HU010		1 MFD 50WV Electrolytic	1	

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
C709	ECEA1AU102		1000 MFD 16WV Electrolytic	1	

[AP1874A]

RESISTORS

R201	ERDS2TJ101		100 ohms 1/4W Carbon	1	
R203	ERDS2TJ473		47k ohms 1/4W Carbon	1	
R205, 206	ERDS2TJ562		5.6k ohms 1/4W Carbon	2	
R209, 210	ERDS2TJ224		220k ohms 1/4W Carbon	1	
R211, 212	ERDS2TJ184		180k ohms 1/4W Carbon	1	
R214	ERDS2TJ104		100k ohms 1/4W Carbon	1	
R215	ERDS2TJ273		27k ohms 1/4W Carbon	1	
R216	ERDS2TJ563		56k ohms 1/4W Carbon	1	
R217	ERDS2TJ561		560 ohms 1/4W Carbon	1	
R218	ERDS2TJ104		100k ohms 1/4W Carbon	1	
R219, 220	ERDS2TJ473		47k ohms 1/4W Carbon	2	
R221, 222	ERDS2TJ152		1.5k ohms 1/4W Carbon	2	
R223, 224	ERDS2TJ104		100k ohms 1/4W Carbon	2	
R225, 226	ERDS2TJ561		560 ohms 1/4W Carbon	2	
R227, 228	ERDS2TJ104		100k ohms 1/4W Carbon	2	
R301	ERDS2TJ101		100 ohms 1/4W Carbon	1	
R303	ERDS2TJ473		47k ohms 1/4W Carbon	1	
R305, 306	ERDS2TJ562		5.6k ohms 1/4W Carbon	2	
R309, 310	ERDS2TJ224		220k ohms 1/4W Carbon	2	
R311, 312	ERDS2TJ184		180k ohms 1/4W Carbon	2	
R314	ERDS2TJ104		100k ohms 1/4W Carbon	1	
R315	ERDS2TJ273		27k ohms 1/4W Carbon	1	
R316	ERDS2TJ563		56k ohms 1/4W Carbon	1	
R317	ERDS2TJ561		560 ohms 1/4W Carbon	1	
R318	ERDS2TJ104		100k ohms 1/4W Carbon	1	
R319, 320	ERDS2TJ473		47k ohms 1/4W Carbon	2	
R321, 322	ERDS2TJ152		1.5k ohms 1/4W Carbon	2	
R323, 324	ERDS2TJ104		100k ohms 1/4W Carbon	2	
R325, 326	ERDS2TJ561		560 ohms 1/4W Carbon	2	
R327, 328	ERDS2TJ104		100k ohms 1/4W Carbon	2	
R701	ERDS2TJ331		330 ohms 1/4W Carbon	1	
R702	ERDS2TJ681		680 ohms 1/4W Carbon	1	
R703	ERDS2TJ561		560 ohms 1/4W Carbon	1	
R704	ERDS2TJ681		680 ohms 1/4W Carbon	1	
R705	ERDS2TJ561		560 ohms 1/4W Carbon	1	
R706	ERDS2TJ222		2.2k ohms 1/4W Carbon	1	
R707	ERDS1FJ560		56 ohms 1/2W Carbon	1	
R709	ERG1SJ820		82 ohms 1W Wire Wound	1	

SWITCHES

SW201, 202	YEAS09186		Graphic Equalizer ON/OFF Switch	2	
SW203	YEAS07145		Sub Bass Frequency Selector	1	

COIL

L701	YETQ021F037		Choke Coil	1	

VARIABLE RESISTORS

VR201	EVUQ5AS06205		100k ohms Fader Control	1	
VR203 to 216	EVBJUMP10G54		50k ohms Tone Control	14	